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**CONSOLIDATED CINOLA MINES LTD.**

Annual Report  
1980



# **CONSOLIDATED CINOLA MINES LTD.**

## ***Officers and Directors***

Angelo Tosi, *Chairman & Director*

Kenneth G. Sanders, P.Eng., *President, C.E.O. & Director*

Reno Calabrigo, *Vice President*

George Sanders, *Vice President*

Nola Peterson, *Secretary & Director*

William R. Green, Ph.D., *Director*

## ***Cinola Operating Company Ltd.***

E. Robert Olson, *President*

### ***Solicitors***

Swinton and Co.

1300-1090 W. Georgia St.

Vancouver, B.C.

Milgrim, Thomajan, Jacobs & Lee

405 Lexington Ave.

New York, N.Y. 10017

### ***Exchange Listings***

Vancouver Stock Exchange

Symbol CSZ

U.S. over the counter

N.A.S.D.A.Q.

Symbol CCIMF

### ***Bank***

Toronto Dominion Bank

Hastings & Hornby

839 W. Hastings St.

Vancouver, B.C.

### ***Registrar and Transfer Agent***

Crown Trust Company

700-800 W. Pender St.

Vancouver, B.C.

320 Bay St.

Toronto, Ontario

### ***Investment Bankers***

Drexel Burnham Lambert Inc.

60 Broad St.

New York, N.Y.

### ***Direct Inquiries to:***

George Sanders, Vice President  
402-595 Howe Street, Vancouver, B.C.  
(604) 669-1524

*Head Office:* 402-595 Howe Street, Vancouver, B.C.

*Registered Office:* 1300-1090 West Georgia St., Vancouver, B.C.

*Authorized Capitalization:* 5,000,000

*Shares Issued:* 3,871,426

## TO THE SHAREHOLDERS

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Angelo Tosi  
Chairman of The Board

Kenneth G. Sanders, P.Eng.  
President &  
Chief Executive Officer



The year 1980 was a period of significant progress for the Company. Highlighting the period were very encouraging results from the Queen Charlotte gold project. After reviewing the positive results of a pre-feasibility study the Joint Venture committed to a pilot milling programme. Construction began in the third quarter.

Development work on the property was intense and fruitful in 1980. The 1978-79 diamond drill grid was expanded to the northern part of the deposit. This exercise clearly showed the deposit to be at least twice as large as indicated at the end of 1979. The diamond drill data together with metallurgical laboratory test results provided informa-

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tion for the pre-feasibility study completed in June.

Conducted by Wright Engineers Ltd., the study was based on open pit mineable reserve calculations of 35.7 million tons grading 0.055 ounces gold per ton, and a milling operation that will process 10,000 tons per day and recover 87 percent of the gold. The capital costs of the project are estimated at \$170.9 million (Can.) and operating costs calculated at \$9.56 (Can.) per ton processed.

The development programme in the final half of the year was concentrated on pilot mill construction. Encouraged by the pre-feasibility and buoyant gold prices the Joint Venture committed to the pilot operation to obtain the necessary production decision information. A 1500 foot long adit is being driven into the deposit and that rock will supply feed for the pilot mill at a rate of 50 tons per day. The object of the pilot mill is to confirm drill data and perfect milling technique.

During fiscal 1980 the Joint Venture expended over \$5.2 million developing the property. Most of the expenses were incurred in the second half of the year in conjunction with pilot mill construction. From Joint Venture inception to year end Energy Reserves Canada Ltd. has contributed over \$5.8 million to the project and have clearly earned their 50 percent

interest in the property. We welcome them as full partners.

Under the terms of the Joint Venture Agreement, Energy Reserves will fund the project beyond the \$5 million equity threshold if Cinola elects not to meet its obligations. We have elected not to fund our 50 percent of the project simply as a matter of economy. Cinola will pay back to E.R.C. out of first production all sums advanced on our behalf at a rate of prime plus 1 percent. In today's market we believe this to be an inexpensive source of capital. To this end the Company has incurred just over \$400,000 in long term debt at year end.

With respect to the larger project financing estimated at \$170 million the Company has retained the investment banking services of Drexel Burnham Lambert Inc. In the past few years Drexel has been a leading Wall Street firm in the area of commodity indexed financing. Management welcomes their expertise and we will be working closely with Drexel to design Cinola's contribution to the financing package.

In fiscal 1980 directors and officers placed over \$850,000 in the treasury through the exercise of various stock options. A further \$570,000 was deposited early in the new year. There still remains just over 177,000 shares under option which, when exercised, will net the

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Company in excess of \$2,350,000. Given the arrangements with Energy Reserves, we believe we are in a healthy financial position until the project construction begins.

In 1979 the Company was introduced to the U.S. over-the-counter market through the NASDAQ system. The positive impact of this move was clearly evident in 1980. The NASDAQ system has greatly influenced the ownership of the Company. This is no doubt a result of several prestigious Wall Street investment firms making a market in your stock. At year end well over two thirds of our shareholders are American citizens.

In December the Company initiated the incorporation of a majority owned subsidiary, Cinola Operating Company Ltd. Energy Reserves Canada is the minority shareholder. Functioning as an agent Company for the Joint Venture, C.O.C.L. will provide project management and support personnel.

We look forward to a successful piloting operation coming on stream early in the new year. Beyond the pilot operation we anticipate commencing final feasibility study late in the second quarter. We look forward to the new year with confidence and anticipate a production decision later in 1981.

On Behalf of  
The Board of Directors

*K. G. Sanders*  
K. G. Sanders, P. Eng.,  
President and  
Chief Executive Officer.

*Angelo Tosi*  
Angelo Tosi,  
Chairman of the Board.

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## THE CINOLA DEPOSIT

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In the past year we have received many inquiries as to the nature, extent and origin of the gold mineralization. Specific questions have included where the gold is found, how much of it there is and where it came from. We hope the following layman's description will assist shareholders and investors in understanding the large tonnage open pit gold deposit that we are developing.

The ore body forms a large oval shaped hill made erosion resistant by its saturation with silica. The mineralized zone is 3000 ft. long by 1000 ft. wide and up to 1000 ft. deep. The rocks in the zone were originally erosion gravels deposited as part of a large river delta system about 14 million years ago. The present ore body might be described as a very large gold bearing gravel deposit. This gravel deposit is thought to have overlain a volcanic eruption that terminated or cooled before reaching the surface of the earth. The gravels that now comprise the ore body also overlie another rock formation and this contact between the two formations provided the path of least resistance

for the sub surface volcanic eruption of molten rock and fluids.

The mineralizing fluids accompanying the eruption were rich in gold, and along with molten rock were forced by the volcanic pressure up along the contact of the two formations. The pressure was not intense enough to force the fluids to surface and so they percolated throughout the loosely packed gravels. Cooling of these fluids resulted in the precipitation of quartz and gold. Because the gravels were so porous gold is found in the present day rock itself as well as in quartz veinlets throughout it. This explains both the consistency of the gold values throughout the deposit as well as the immense size of the ore body.

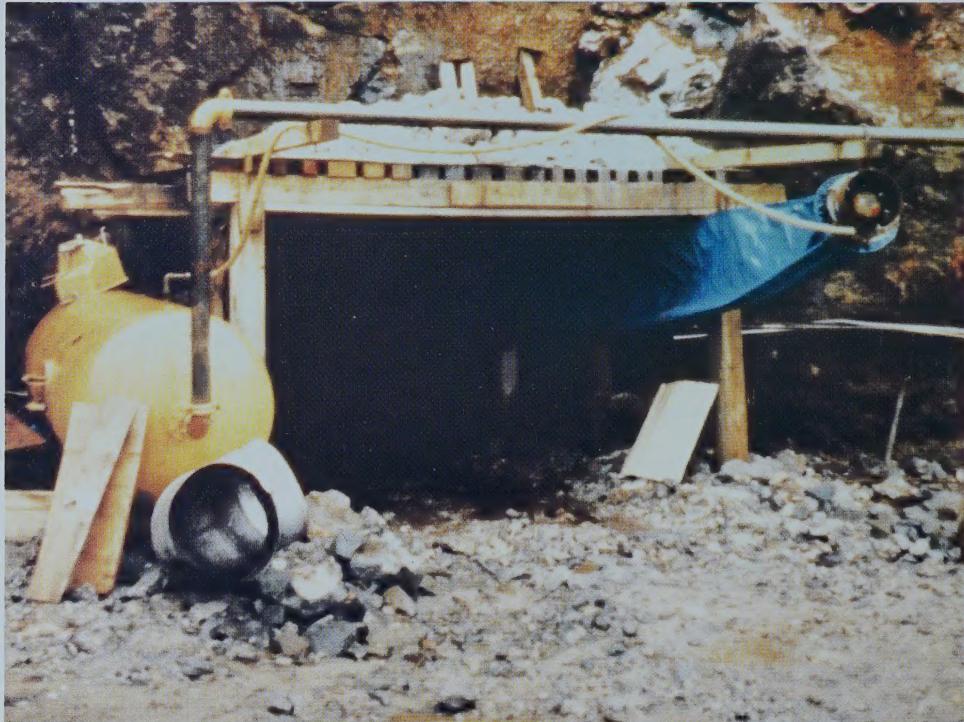
The above scenario has been developed in greater technical detail by many geologists and engineers. Extensive analytical work was undertaken in 1980. The deposit has been and continues to be the topic of many technical papers, some of which have been presented at recent engineering and mining association meetings.

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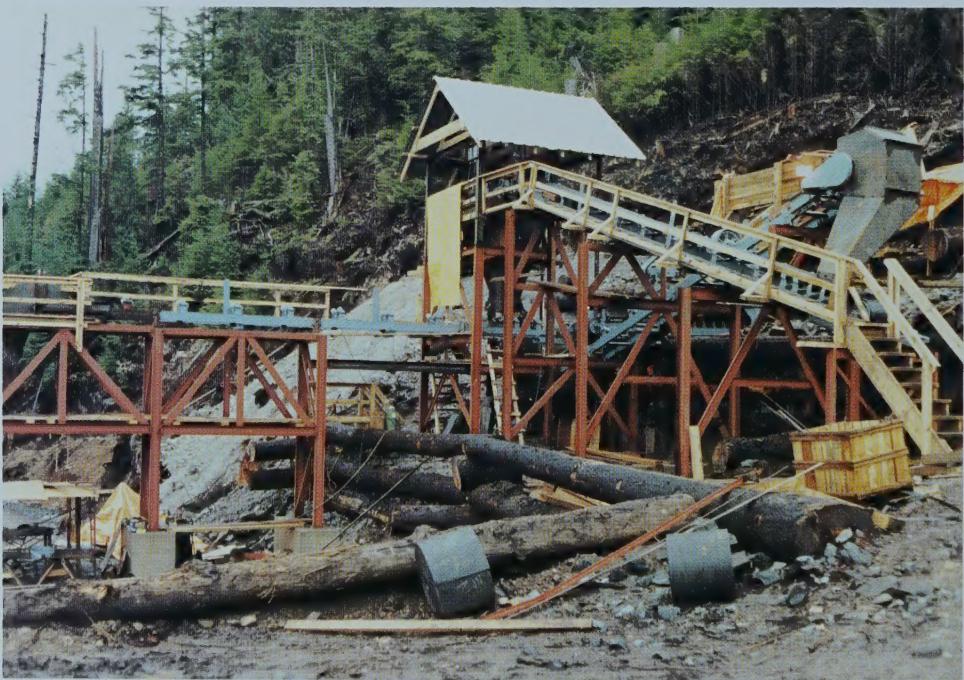
The Company wishes to acknowledge the contribution of the following people to a clearer understanding of the geology of the Cinola deposit,

R.C. Hart P.Eng., Toronto, Ontario;  
Normand Champigny, University of B.C.;  
Alistair Sinclair Ph.D., University of B.C.;  
Michael Cruson, Cruson & Pansze Denver,  
Colo; Arthur Pansze, Cruson & Pansze

Denver, Colo; Fred Limbach, Cruson & Pansze Denver, Colo; W. Don Sutherland, Energy Reserves Canada Ltd.; Robert Brooks Ph.D., Energy Reserves Canada Ltd.; Duncan Bain, Cinola Operating Company; Steve Lacy, Cinola Operating Company; Kenneth G. Sanders, P.Eng., Consolidated Cinola Mines Ltd.



*The portal, or entrance to the tunnel is seen here. The tunnel will be driven 1500 ft. straight into the deposit.*



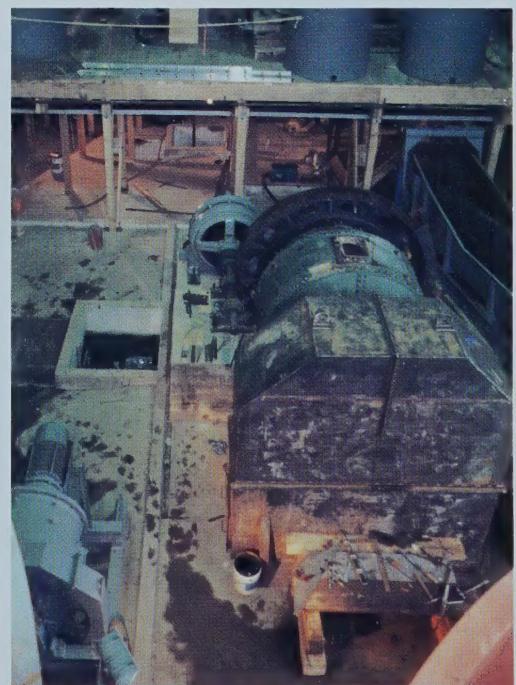
*The crushing and screening plant at the portal site.*



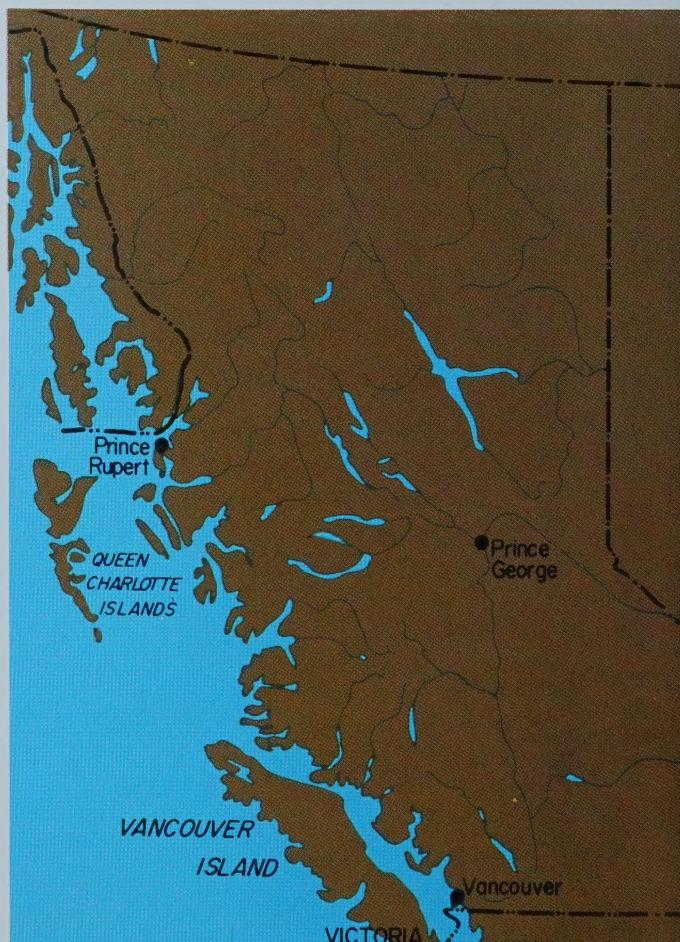
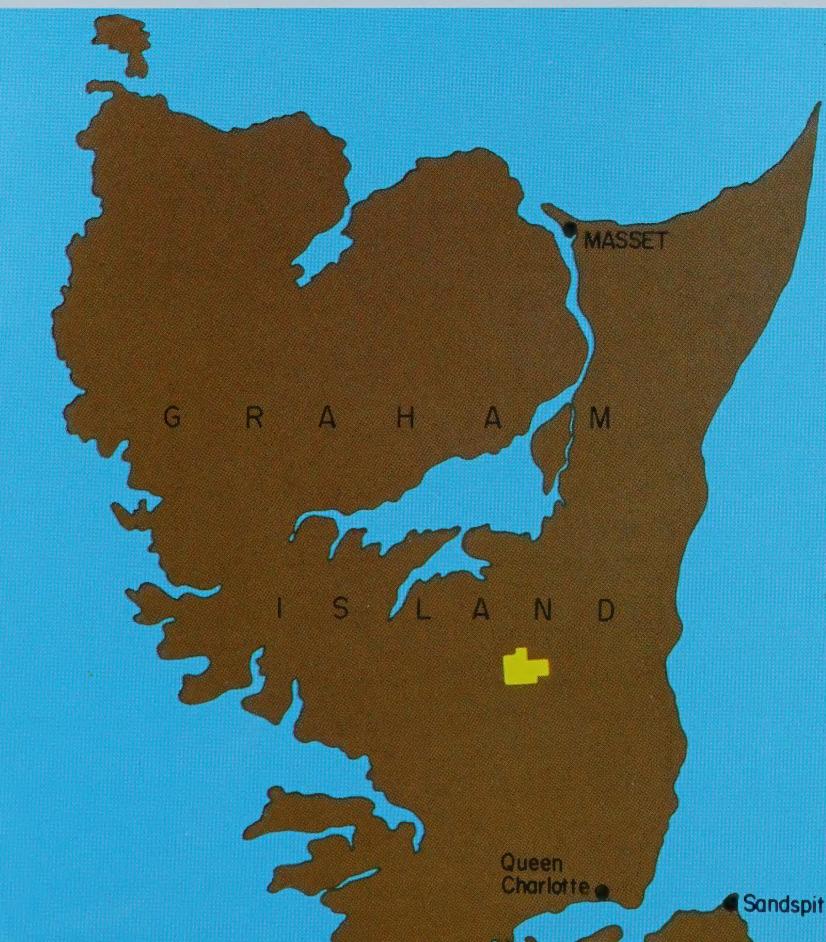
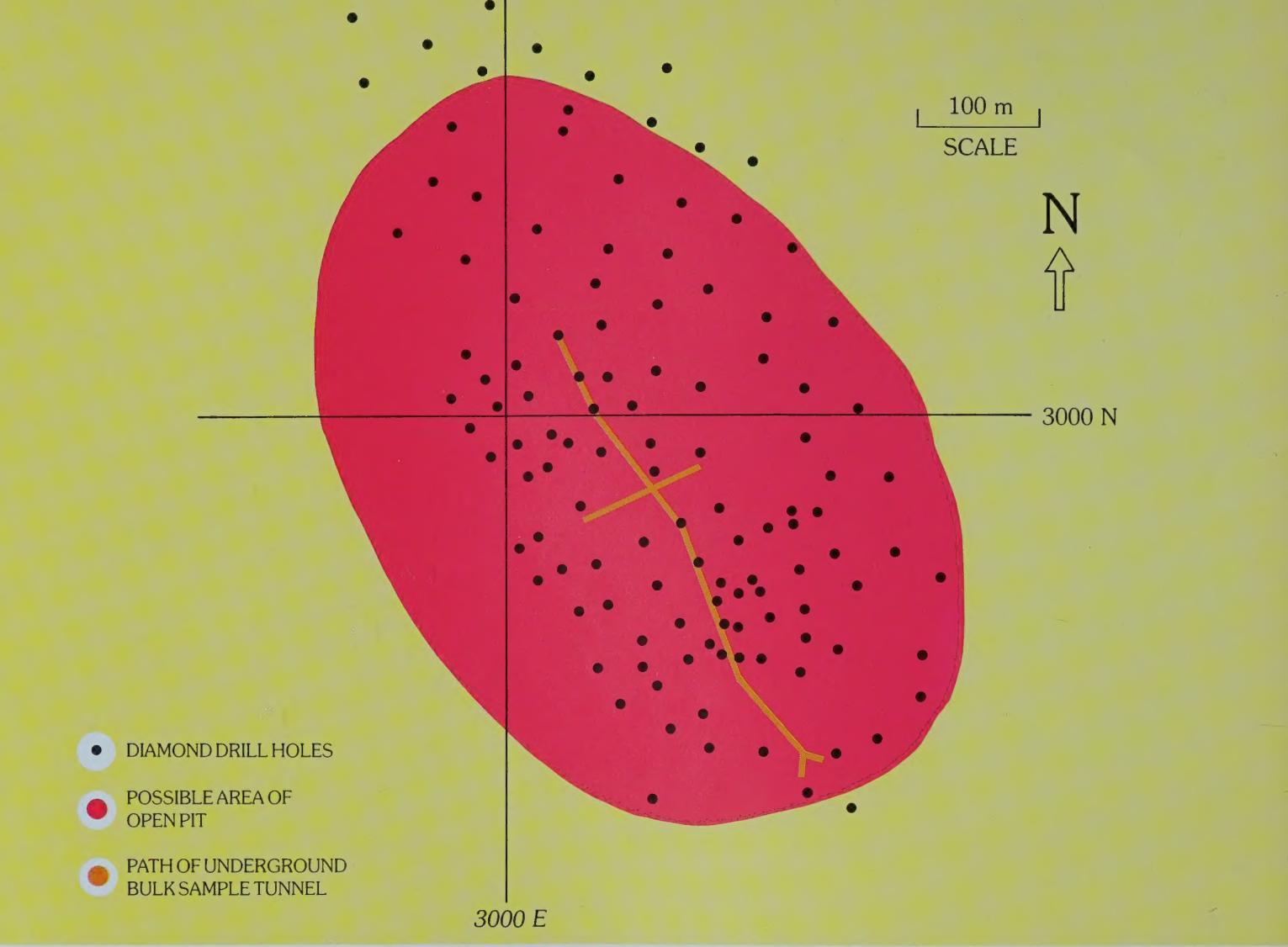
A view of the pilot mill from the outside. The building is 250 ft. long, 40 ft. wide and 50 ft. high.



Another view of inside the mill shows the thickening area in the foreground.

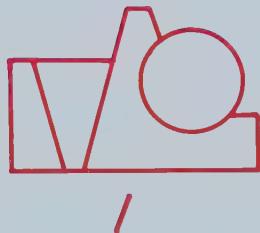


Inside the mill the ore will be processed through the grinding and flotation areas pictured here. The ball mill is in the lower foreground.

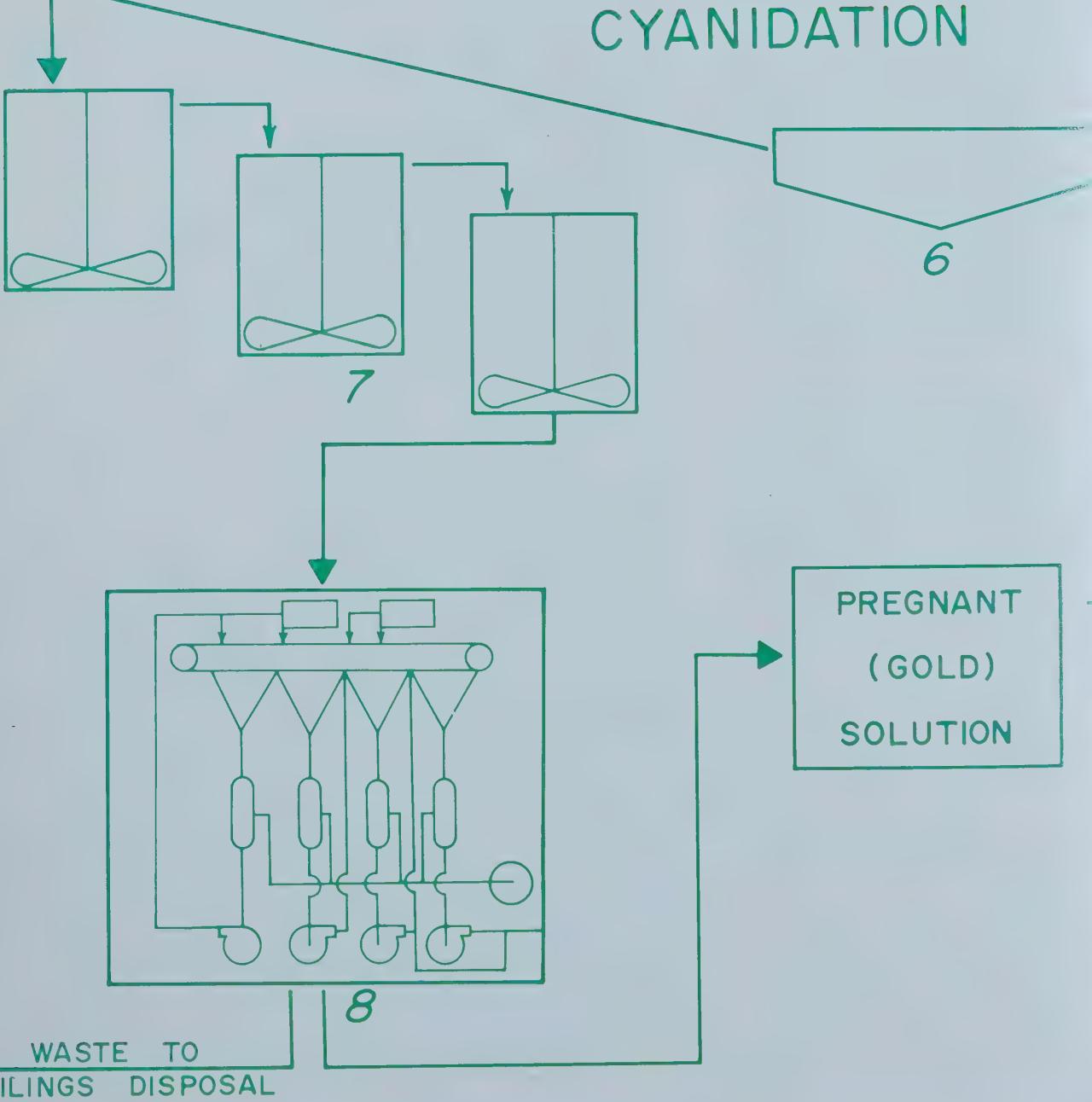


## CRUSHING

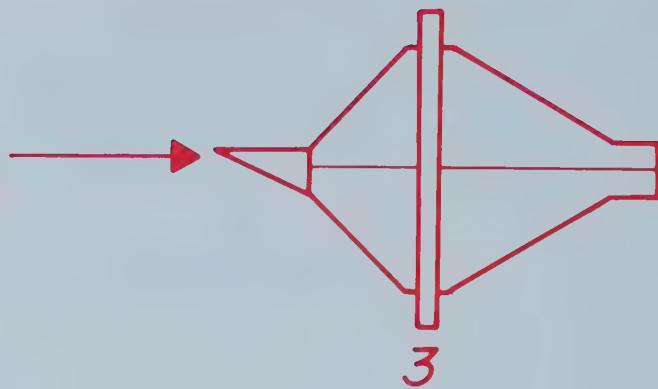
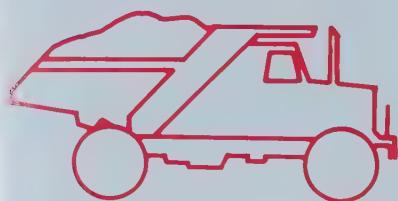
ORE



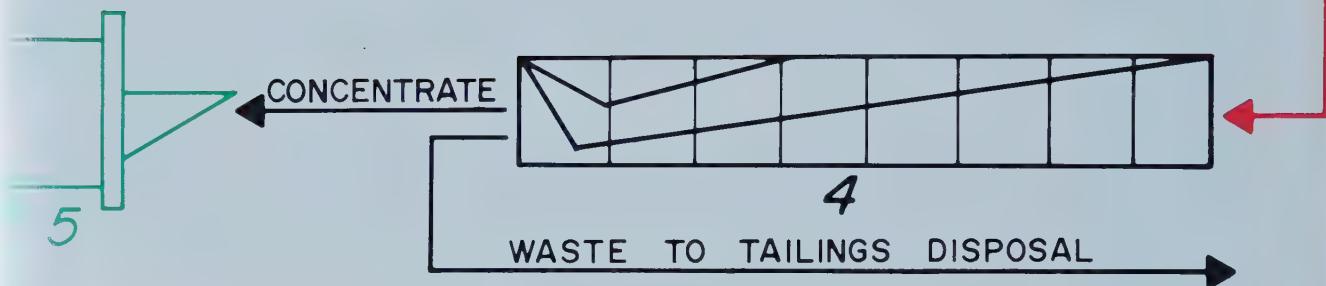
## CYANIDATION



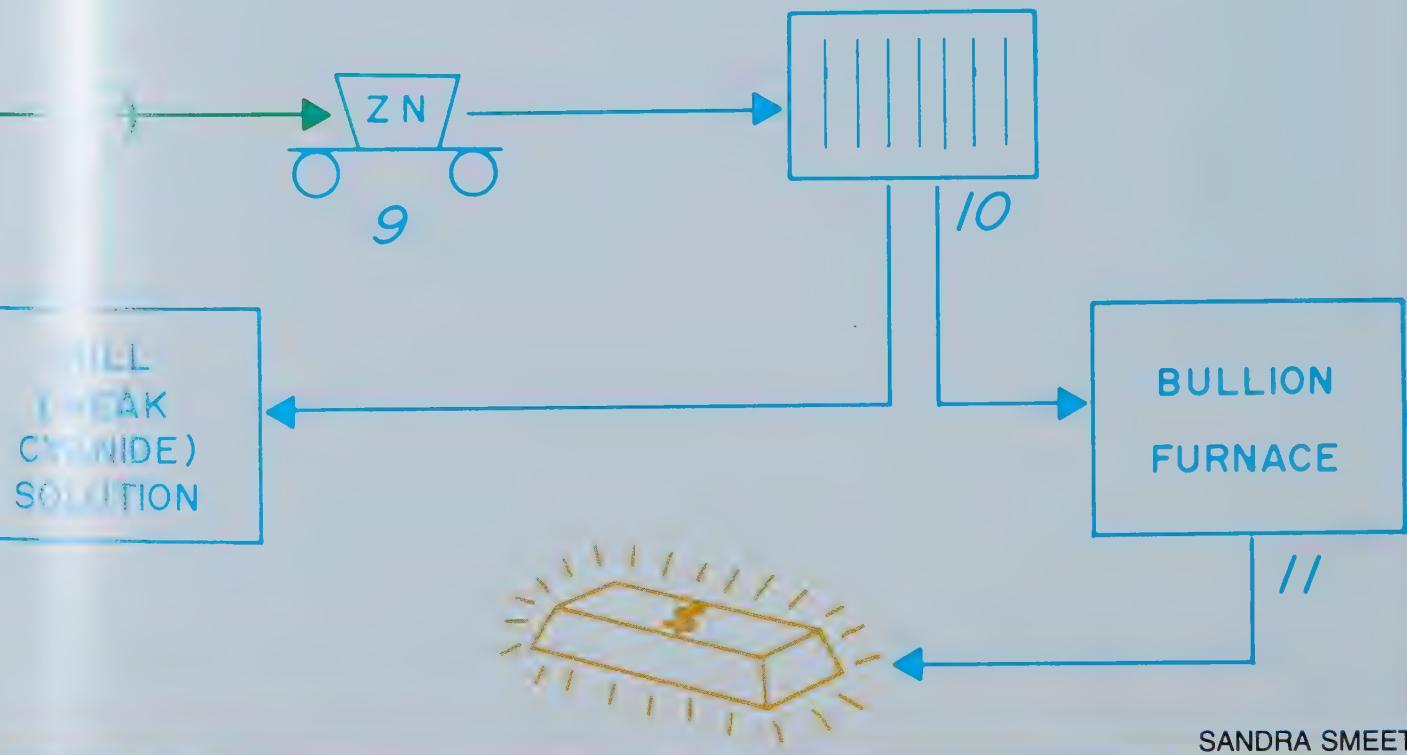
# GRINDING



# FLOTATION



# PRECIPITATION



SANDRA SMEETON

## MILL FLOW SHEET

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The accompanying flow sheet chart is a generalized pictorial presentation of the gold extraction circuit that we propose to test in our current pilot milling project. The process outlined here is basic to gold milling and for the purposes of this presentation can be applicable to the proposed 10,000 ton per day mill as well as to the pilot mill we will operate in the first quarter of 1981.

1) CRUSHING — Mined ore from the underground tunnel and eventually from the open pit will be crushed to reduce it to a workable and transportable size. It is anticipated that the pilot mill ore will be crushed to approximately  $\frac{1}{2}$  inch size. Coarse ore is usually reduced progressively by crushing in two or more stages until its size becomes acceptable for its introduction into the milling process.

2) STOCKPILING — Crushed ore is stockpiled to await transportation to the mill. Stockpiling insures an uninterrupted feed for the mill as it must process the ore at fixed daily rate.

3) GRINDING — The crushed ore enters the mill and is ground to a consistency as fine as flour. The milling process gets its name at this stage as it is similar to the milling of wheat into flour. In a rock milling process the grinding is done in a ball mill. The grinding of ore inside the ball mill is facilitated by the introduction of iron balls of 'shot put' size which continually roll and grind together as the ball mill rotates.

4) FLOTATION — The ore that has been ground to the consistency of thick muddy water next enters the flotation circuit. Flotation cells are filled with liquid reagents that are made to foam and froth by mechanical agitation and some introduced forced air. The reagents are chosen as collectors for the particular metallic ores that they best adhere to. The froth and foam collect only the elements and metals that are to be concentrated for further processing. The bubbles and the selected materials adhering to them are then skimmed off at the top of the cells and are passed on to the next stage of the extraction process. This material is called flotation concentrate. The remaining powdered rejected material is called the flotation tailing and is pumped or flows by gravity to the tailings disposal area (tailings pond). This material is barren and uncontaminated.

5) REGRIND — The volume of the material remaining in the circuit has been greatly reduced, whereas the concentration of metals has increased. This concentrate enters the regrind mill where the mill solution containing very weak sodium cyanide is introduced. The material is then ground to an even finer consistency to liberate and expose the very fine individual gold particles.

6) THICKENING — In order to flow through the milling circuit properly the material must be aided in maintaining a certain consistency of solids within the liquids that transport them through the process.

7) AGITATING — The thickened material enters the cyanide leach tanks where it will remain for up to 72 hours. The ground material in suspension is agitated and this action together with the length of cyanide solution exposure time allows the cyanide solution to dissolve most of the gold contained in the ground material (flotation concentrate).

8) FILTERING — Material from the cyanide leach tanks enters a filtering process. The material is separated into solids and liquids. The liquid, called pregnant solution, now containing the dissolved gold, is pumped further on in the circuit. The solid waste material is washed and filtered several times and is finally removed to the cyanide tailings disposal area. Most of the cyanide has been either extracted, diluted or neutralized before it enters the cyanide tailings ponds which is smaller and separate from the flotation tailings disposal pond.

9) ZINC FEEDER — In order to remove the dissolved gold from the pregnant solution zinc dust is added. The zinc precipitates the gold from the solution.

10) FILTERING — The solution and precipitate enter a filtering system where the solids and liquids are separated. The filtered mill solution (cyanide) is now void of gold and reenters the circuit. The precipitate gold is collected and moved to the bullion furnace.

11) SMELTING — The precipitate gold is subjected to melting temperatures in the furnace and the melted gold is poured off into appropriate bar form.

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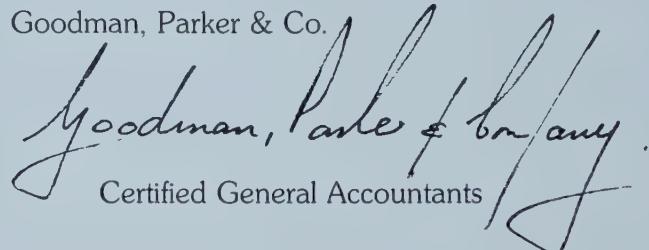
## AUDITORS' REPORT

To the Shareholders of  
Consolidated Cinola Mines Ltd.

We have examined the balance sheet of Consolidated Cinola Mines Ltd. as at December 31, 1980 and the statements of deficit, deferred exploration, development and administration expenses, and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the company as at December 31, 1980 and the result of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Goodman, Parker & Co.



The signature is handwritten in cursive ink and reads "Goodman, Parker & Company".

Certified General Accountants

Vancouver, B.C.  
February 26, 1981

CONSOLIDATED CINOLA MINES LTD.  
Balance Sheet as at December 31, 1980

**ASSETS**

	1980	1979
<b>Current</b>		
Cash	\$ 730,363	\$ 235,037
Accounts receivable	<u>79,623</u>	<u>—</u>
	<u>809,986</u>	<u>235,037</u>
<b>Fixed</b> (Note 2)	<u>97,853</u>	<u>71,727</u>
<b>Mineral Claims, at cost</b> (Note 3)	<u>613,750</u>	<u>613,750</u>
<b>Investment</b> (Note 4)	<u>1</u>	<u>—</u>
<b>Deferred Expenses</b>		
Exploration, Development and		
Administration	1,564,496	858,113
Incorporation	<u>—</u>	<u>2,000</u>
	<u>1,564,496</u>	<u>860,113</u>
	<u>\$3,086,086</u>	<u>\$1,780,627</u>

**LIABILITIES**

<b>Current</b>		
Accounts payable	\$ 100,888	\$ 95,597
Loans	<u>—</u>	<u>1,500</u>
	<u>100,888</u>	<u>97,097</u>
<b>Long Term Debt</b> (Note 5)	<u>430,638</u>	<u>—</u>

**SHAREHOLDERS' EQUITY**

<b>Share Capital</b> (Note 6)		
<b>Authorized:</b> 5,000,000 shares, no par value		
<b>Issued:</b> 3,871,426 (1979: 3,675,226)	3,268,645	2,395,615
<b>Deficit</b>	<u>(714,085)</u>	<u>(712,085)</u>
	<u>2,554,560</u>	<u>1,683,530</u>
	<u>\$3,086,086</u>	<u>\$1,780,627</u>

Signed on behalf of the  
Board of Directors:

, Director

K. S. Sanders, Director

See accompanying notes.

CONSOLIDATED CINOLA MINES LTD.  
**Statement of Deferred Exploration, Development  
 and Administration Expenses**  
 for the year ended December 31, 1980

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	<b>1980</b>	<b>1979</b>
Exploration and development costs for the year	\$ —	\$ 386,675
Exploration and development costs — Joint Venture	5,219,869	641,408
<b>Less:</b> Joint Venture costs shared by		
Energy Reserves Canada Ltd.	<u>(4,826,377)</u>	<u>(604,262)</u>
	393,492	423,821
Administration and general overhead	332,852	191,969
Depreciation	<u>19,504</u>	<u>—</u>
	<u>745,848</u>	<u>615,790</u>
<b>Less:</b> Interest income	39,465	37,390
Expenses written off to deficit	<u>—</u>	<u>469,198</u>
	<u>39,465</u>	<u>506,588</u>
<b>Deferred Exploration, Development and Administration      Costs for the year</b>	<b>706,383</b>	<b>109,202</b>
<b>Deferred Expenses — Beginning of year</b>	<b>858,113</b>	<b>748,911</b>
<b>Deferred Expenses — End of year</b>	<b><u>\$1,564,496</u></b>	<b><u>\$ 858,113</u></b>

CONSOLIDATED CINOLA MINES LTD.  
**Statement of Deficit**  
 for the year ended December 31, 1980

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	<b>1980</b>	<b>1979</b>
<b>Balance — Beginning of Year</b>	<b>\$ 712,085</b>	<b>\$ 127,773</b>
<b>Costs Written Off:</b>		
Incorporation	2,000	—
Exploration and development	—	469,198
Mineral claims	—	59,990
Mining equipment	—	55,124
<b>Balance — End of Year</b>	<b><u>\$ 714,085</u></b>	<b><u>\$ 712,085</u></b>

See accompanying notes.

CONSOLIDATED CINOLA MINES LTD.  
**Statement of Changes in Financial Position**  
**for the year ended December 31, 1980**

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	<b>1980</b>	<b>1979</b>
<b>Source of Funds:</b>		
Issue of share capital	\$ 873,030	\$1,151,418
Sale of "Midnight" property	—	40,010
Energy Reserves Canada Ltd.	430,638	—
Reduction in accounts payable	—	4,327
Interest income	<u>39,465</u>	<u>37,390</u>
	<u>1,343,133</u>	<u>1,233,145</u>
<b>Application of Funds:</b>		
Administration expense	332,852	191,969
Purchase of office furniture	42,401	—
Leasehold improvements	3,229	—
Property payment	—	397,500
Exploration and development costs	393,492	423,821
Purchase of mining equipment	—	71,727
Investment in subsidiary	<u>1</u>	<u>—</u>
	<u>771,975</u>	<u>1,085,017</u>
<b>Increase in Working Capital</b>		
<b>Working Capital (Deficiency) — beginning of period</b>	<u>571,158</u>	<u>148,128</u>
<b>Working Capital — end of period</b>	<u>\$ 709,098</u>	<u>\$ 137,940</u>
<b>Represented by:</b>		
Current Assets	\$ 809,986	\$ 235,037
Current Liabilities	<u>100,888</u>	<u>97,097</u>
	<u>\$ 709,098</u>	<u>\$ 137,940</u>

See accompanying notes.

**CONSOLIDATED CINOLA MINES LTD.**  
**Notes to Financial Statements**  
**for the year ended December 31, 1980**

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## **1. SUMMARY OF ACCOUNTING POLICIES**

### **a) Values**

The amounts shown for mineral claims represent acquisition costs and do not necessarily reflect present or future values.

### **b) Deferred Costs**

The company is engaged in the development of natural resource properties and has established a policy of deferring all costs relating to exploration projects until such time as the projects are put into commercial production, sold or abandoned.

### **c) Depreciation**

The mining equipment and office furniture are depreciated at 20% per annum using a declining balance method. Leasehold improvements are amortized at 20% per annum on a straight line basis.

## **2. FIXED ASSETS**

	<b>Cost</b>	<b>Accumulated Depreciation</b>	<b>Net Book Value</b>	
			<b>1980</b>	<b>1979</b>
Mining equipment	\$ 71,727	\$14,347	\$57,380	\$71,727
Office furniture	42,401	4,834	37,567	—
Leasehold improvements	3,229	323	2,906	—
	<u>\$117,357</u>	<u>\$19,504</u>	<u>\$97,853</u>	<u>\$71,727</u>

## **3. MINERAL CLAIMS**

The mineral claims are situated in the Skeena Mining Division, Queen Charlotte Island, in the Province of British Columbia. These claims were assigned by a director to the company for \$15,000 cash and 300,000 shares of the company. Energy Reserves Canada Ltd. having spent \$5,000,000 on the exploration project have earned 50% interest in these claims.

## **4. INVESTMENT**

The company has acquired 66.67% interest in Cinola Operating Company Ltd. which was incorporated on December 17, 1980 to act as an agent company to the joint venture (Note 7).

## **5. LONG TERM DEBT**

The long term debt arises as a result of financing of the company's portion of joint venture costs by Energy Reserves Canada Ltd.

The debt is subject to prime plus one percent rate of interest and is repayable from 50% of the share of operating profits of the joint venture distributed to the company.

## **6. SHARE CAPITAL**

a) As at December 31, 1980 the issued share capital of the company was as follows:

	<b>No. of Shares</b>	<b>Consideration</b>
For cash	3,180,988	\$2,949,720
For mineral properties/ agreement	690,438	318,925
	<u>3,871,426</u>	<u>\$3,268,645</u>

b) i By a stock option agreement dated January 12, 1979, the company granted a five-year option to a director to purchase 150,000 treasury shares of the company at prices commencing at \$3.35 per share and ending at \$4.35 per share. During the year 150,000 shares were issued at \$3.60 per share.

ii By a stock option agreement dated February 23, 1979, the company granted a five-year option to a director of the company to purchase 30,000 treasury shares of the company at \$3.85 per share. This option was exercised on February 12, 1980 and the company received \$115,500.

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c) At the end of the year share purchase warrants were outstanding under which 500,000 treasury shares of the company may be purchased at \$1.10 per share to January 3, 1981 and then \$1.35 to January 3, 1982. Subsequent to the year end 500,000 shares were issued at \$1.10.

d) The company granted the following stock options during the year to its employees and directors:

Employees:

A five-year option commencing March 28, 1980, to purchase 20,000 shares at \$14.40 per share. During the year 1,200 shares were issued under this option. Subsequent to year end 1,700 shares were issued at \$14.40 per share.

One year option commencing August 21, 1980 to purchase 5,000 shares at \$11.25 per share. During the year 5,000 shares were issued under this option.

Directors:

A five-year option commencing March 28, 1980 to purchase 10,000 shares at \$14.40 per share. During the year 10,000 shares were issued under this option.

One year option commencing August 21, 1980 to purchase 110,000 shares at \$12.50 per share.

## **7. JOINT VENTURE**

Under the terms of the joint venture agreement dated November 1979, Energy Reserves Canada Ltd. has earned 50% interest in the Queen Charlotte property having spent \$5,000,000 on exploration costs. Energy Reserves Canada Ltd. and the Company have spent \$5,861,277 on behalf of the joint venture from inception to December 31, 1980.

Expenditures over \$5,000,000 on joint venture is shared equally between Energy Reserves Canada Ltd. and the company.

## **8. REMUNERATION OF DIRECTORS AND SENIOR OFFICERS**

Direct remuneration paid or payable during the period to directors and senior officers as defined by the British Columbia Company Act amounted to \$106,167 for the year ended December 31, 1980.

## **9. COMMITMENT**

The company entered into a five year lease commencing August 15, 1980 for the rental of offices at a rental of \$36,771 per annum.

## **10. SUBSEQUENT EVENT**

Subsequent to December 31, 1980 the company has invested \$72,217 in the shares of a private company incorporated in the State of Delaware, U.S.A.

